



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/330,743	06/11/1999	BRIAN BUCHANAN	RA998-040	9782

25299 7590 03/28/2003

IBM CORPORATION
PO BOX 12195
DEPT 9CCA, BLDG 002
RESEARCH TRIANGLE PARK, NC 27709

EXAMINER

EMDADI, KAMRAN

ART UNIT	PAPER NUMBER
----------	--------------

2664

DATE MAILED: 03/28/2003

9

Please find below and/or attached an Office communication concerning this application or proceeding.

12

Office Action Summary

Application No.

09/330,743

Applicant(s)

BUCHANAN ET AL.

Examiner

Kamran Emdadi

Art Unit

2664

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 January 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No: _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claim 11-24 have been considered but are moot in view of the new ground(s) of rejection.

- With regard to the misalignment portion of claim 11 and 13, the specification shows in numerous instances an alignment process, which the invention undergoes for benefit to the data processing mechanism, however the only instance of misalignment correction stated, in claim 11 for example:

"determining misalignment between predefined bit patterns" (Claim 1, line 9).

Has no direct explanation in the specification, the only reference to a misalignment adjustment process is phrased in the specification as:

"As stated above, the function of Word Aligner 80 is to detect mis-alignment between the various word groups and align them accordingly." (Page 26, lines 20-22)

when the examiner attempted to look for details regarding the detection of misalignment ("As stated above") nothing was found above or anywhere else in the specification. The Word Aligner 80 however, had the following description:

"The function of Word Aligner 80 is to recover the word that was transmitted from the Tx port" (Page 26, lines 1-4) Examiner notes the amendment and the statement quoted herein has not changed this phrase.

Following this description of a Word Aligner 80, the process goes into details regarding a trace length matching process and a propagation delay analysis as factors considered by the Word Aligner 80 and its alignment process, therefore it can only be assumed by the examiner that the misalignment portion of the claims

has something to do with the propagation delay and trace length mentioned in relation to the Word Aligner 80, which in turn was mentioned once to have something to do with a mis-alignment also notably spelled differently than found in the claim language but still assumed to be the same misalignment found in the claims, the examiner will take this explanation stated above into consideration when considering the claims that include the use of the word misalingnment, also the process of fixing a misalignment is inherently drawn from the functionality of an aligner and appropriate adjustments regarding this issue are made in the new rejection to follow.

- In addition to the concerns outlined in the specification, the examiner has found another term referred to in claim 17, and in independent claim 20 and other subsequent claims as "storage devices" the specification only refers to one instance of storage used in the context of a delay element but a reasonable assumption can be drawn by the examiner to relate the storage device to the delay element even though the specification does not have a known "storage device(s)".
- Regarding claims 11-24, a new found reference has been used to reject the amended claims.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 11, 13-16 and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Hartley et al. (US Patent No. 5034908).
4. Regarding claims 11 and 24, Hartley teaches: a device that handles plural lines of data and transfers serial data to parallel bits 18 (Figure 8) and (Figure 12) where a word latch stores in memory a predefined group of bits, where a programmed computer of computation device is inherent to accessing a memory bit storage device and an aligner to handle the inherent misalignment for the predefined bit patterns in a linear fashion (Col 32, lines 33-43) and a memory RAM for the words to be written too (Col 21, lines 65-67).
5. Regarding claims 13-16, Hartley teaches: a plurality of system operable to receive serial data to generate parallel data 73 and 78 (Figure 17) and a system for generating a plurality of serial streams 80-83 (Figure 18) and having a high speed bus attached (Figure 9) and a data recover circuit operable to handle a nibble of data bits as described above.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U. S. C. 103 (a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 12 and 17-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hartley et al. (US Patent No. 5034908) in view of Pocrass (US Patent No. 5428806).
- Regarding claims 12 and 17-23, Hartley teaches: a system with recovery circuits and an alignment correction with serial and parallel bit streams and a latch for word (Figures 17-25, 26b) and a plurality of multiplexers 30-33 using the latch command (Col 29, lines 5-10) and (Figure 10) where the number of parallel sets of storage devices is four (Figure 10) 34-37 and a memory or storage device delay elements attached to the multiplexers (34-37) (Figure 10) and a plurality of multi-bit latches serially connected, 19 (Figures 11 and 12) 79 (Figure 17) and 94 (Figure 18) and a processor 57 (Figure 13). But fails to teach of a controller and a bit pattern of 0101. Pocrass teaches a system of transmitting and receiving with 3-bit latches (figure 6B) and an arrangement with 4 data lines (Col 11, lines 13-16) and the use of memory to store data that had undergone a serial to parallel conversion for bit streams of data word types (Col 9, lines 45-50), where the bit word pattern 0101 is from a list of binary representations for the fourteen slots in the hardware device respectively one being 0101, (Col 19, 34-55) and a controller 142 (Figure 6A) used to control the accessing of memory. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the use of a bit pattern to represent the number five as a value associated with an element of the references as five is a small enough value to be included in a table of values counting up to fourteen and to include a controller for easy access to stored data patterns.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
- Le Garrec (US Patent No. 5970071) Device for data insertion in a digital network.
 - Rakib (US Patent No. 6356555) Digital data transmission device.
 - Little (US Patent No. 4268722) Radiotelephone system with recovery circuits.
 - Watt et al. (US Patent No. 5987561) Microprocessor storage.
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kamran Emdadi whose telephone number is (703) 305-4899. The examiner can normally be reached between the hours of 9am and 5pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin, can be reached at (703) 305-4366. The fax phone numbers for the organization where this application or proceeding is assigned is (703) 872-9314 for regular communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Kamran Emdadi

KWANG BIN YAO
PRIMARY EXAMINER



Application/Control Number: 09/330,743

Art Unit: 2664

Page 7

03/22/03

Attachment for PTO-948 (Rev. 03/01, or earlier)
6/18/01

The below text replaces the pre-printed text under the heading, "Information on How to Effect Drawing Changes," on the back of the PTO-948 (Rev. 03/01, or earlier) form.

INFORMATION ON HOW TO EFFECT DRAWING CHANGES

1. Correction of Informalities -- 37 CFR 1.85

New corrected drawings must be filed with the changes incorporated therein. Identifying indicia, if provided, should include the title of the invention, inventor's name, and application number, or docket number (if any) if an application number has not been assigned to the application. If this information is provided, it must be placed on the front of each sheet and centered within the top margin. If corrected drawings are required in a Notice of Allowability (PTOL-37), the new drawings **MUST** be filed within the **THREE MONTH** shortened statutory period set for reply in the Notice of Allowability. Extensions of time may **NOT** be obtained under the provisions of 37 CFR 1.136(a) or (b) for filing the corrected drawings after the mailing of a Notice of Allowability. The drawings should be filed as a separate paper with a transmittal letter addressed to the Official Draftsperson.

2. Corrections other than Informalities Noted by Draftsperson on form PTO-948.

All changes to the drawings, other than informalities noted by the Draftsperson, **MUST** be made in the same manner as above except that, normally, a highlighted (preferably red ink) sketch of the changes to be incorporated into the new drawings **MUST** be approved by the examiner before the application will be allowed. No changes will be permitted to be made, other than correction of informalities, unless the examiner has approved the proposed changes.

Timing of Corrections

Applicant is required to submit the drawing corrections within the time period set in the attached Office communication. See 37 CFR 1.85(a).

Failure to take corrective action within the set period will result in **ABANDONMENT** of the application.